

**Proposed Modification of General National Pollutant Discharge Elimination System  
(NPDES) Permit No. CAG280000 for Offshore Oil and Gas Exploration, Development and  
Production Facilities in Federal Waters off Southern California**

For reasons set forth in the fact sheet, EPA is proposing the following modifications to the general permit for offshore oil and gas facilities. These proposed modifications would become effective as described under items 4 and 5 below.

Dated:

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Director, Water Division, EPA Region 9

**1. Addition of Appendix C for Produced Water Discharges**

EPA proposes to modify the general permit to include a new Appendix C that describes new effluent limitations, monitoring requirements and reporting requirements for produced water discharges. Requirements are specified on a platform-by-platform basis. Appendix C is attached to this proposed permit modification. Part II.B.1.f.1 of the existing general permit would be deleted (including Tables 5 and 6) since these requirements only applied during the period of the reasonable potential study. Part II.B.6.a would be modified to include the following additional statement requiring compliance with the new Appendix C: “In addition, permittees of platforms listed in Appendix C must comply with the effluent limitations, monitoring requirements and reporting requirements specific to their platform(s).”

**2. Addition of Appendix D for Cooling Water and Fire Control System Test Water Discharges**

EPA proposes to modify the general permit to include a new Appendix D that describes new effluent limitations, monitoring requirements and reporting requirements for discharges of chlorine in cooling water and fire control system test water. Requirements are specified on a platform-by-platform basis. Appendix D is attached to this proposed permit modification. For consistency with the new Appendix D, the following changes are proposed in the existing general permit:

a) In Table 12, the words “monitor only” for chlorine would be deleted since the reasonable potential period of the permit is over. Also, the words “same as Part II.B.1.b.2” for produced water would be deleted and replaced with “once/quarter.”

b) Part II.F.4 would be replaced with the following:

“4. Chlorine. Discharges of fire control system test water, noncontact cooling water, and/or hydrotest water, to which chlorine has been added, must comply with the discharge

limitations, monitoring requirements and reporting requirements contained in Appendix D. For any platform not listed in Appendix D that desires to commence the addition of chlorine to any of the above waste types, monthly chlorine monitoring must be conducted for 12 months and those data provided to EPA for reasonable potential evaluation. If reasonable potential for exceedance of EPA water quality criteria for chlorine is determined to be present, EPA will reopen and modify this permit to establish additional effluent limits and monitoring requirements for chlorine based on the submitted monitoring results.”

### **3. Modification of Water Quality Criterion for Undissociated Sulfide**

The water quality criterion for undissociated sulfide in produced water discharges in Table 4 of the general permit is proposed to be modified from 2.0 ug/l to 5.79 ug/l. In determining the undissociated sulfide concentration, the permittee may use the measured concentration of total sulfide or dissolved sulfide in the produced water sample.

### **4. Permit Modification Effective Date**

Except as provided under item 5 below, the effective date of this permit modification is proposed as follows:

(1) if, on the date of the Federal Register notice of the final permit modification, the California Coastal Commission (CCC) has concurred that the permit modification is consistent with the California Coastal Management Program, the permit modification shall become effective on the first day of the platform’s quarterly DMR period that begins at least 45 days after the Federal Register notice, or

(2) if, on the date of the Federal Register notice of the final permit modification, the CCC has yet to act on the final permit modification, but ultimately concurs, the permit modification shall become effective on the first day of the platform’s quarterly DMR period that begins at least 45 days after the date of the CCC concurrence, or

(3) if, on the date of the Federal Register notice of the final permit modification, the CCC has objected to the final permit modification, permittees for the platforms listed in Appendices C and D of the modified general permit shall submit individual consistency certifications to the CCC for the permit modification. These certifications shall be submitted to the CCC within three months of the date of the Federal Register notice of final permit modification, or

(4) if, on the date of the Federal Register notice of the final permit modification, the CCC has yet to act on the final permit modification, but ultimately objects, permittees for the platforms listed in Appendices C and D of the modified general permit shall submit individual consistency certifications to the CCC for the permit modification. These certifications shall be submitted to the CCC within three months of the date of the CCC’s objection;

(5) for all platforms for which an individual consistency certification is submitted to the CCC, and the CCC concurs with the certification, the permit modification shall become effective on

the first day of the platform's quarterly DMR period that begins at least 45 days after the date of the CCC concurrence;

(6) for all platforms for which an individual consistency certification is submitted to the CCC, and the CCC objects to the certification, the permittee shall submit an appeal to the Secretary of Commerce within 30 days of the date of the CCC's objection in accordance with 15 CFR 930.125. For all platforms for which a timely appeal is filed with the Secretary of Commerce, and the Secretary overrides the CCC's objection, the permit modification shall become effective on the first day of the permittee's quarterly DMR period that begins at least 45 days after the date of the Secretary's decision. If the Secretary upholds a CCC objection which has been appealed by the permittee for a platform, this permit modification shall not become effective for that platform. In that case, the operator of that particular platform shall apply for an individual permit and seek a CCC consistency determination.

## **5. Decay Factor for Undissociated Sulfide in Produced Water**

For produced water discharges, a permittee may request that this permit be modified to include a decay factor in making compliance determinations for undissociated sulfide at the edge of the mixing zone. Such a request shall be accompanied by the results of a study of the decay of undissociated sulfide in produced water discharged in southern California Federal waters. Upon receipt of the study by Region 9, this permit may be reopened and modified to include a decay factor in making compliance determinations for undissociated sulfide at the edge of the mixing zone.

## **Appendix C - Platform Specific Requirements for Produced Water**

The effluent limitations in the following tables are applicable following initial dilution in the mixing zone defined in Part V of the general permit. Compliance with the limits shall be determined through the use of the following equation:

$$C_o = \frac{C_e + D_m C_s}{1 + D_m}$$

Where  $C_o$  = the concentration in the discharge after initial dilution,

$C_e$  = the end-of-pipe concentration prior to dilution,

$C_s$  = background seawater concentration (see Appendix A of the general permit), and

$D_m$  = the dilution ratio expressed in parts seawater per part wastewater.

On the Discharge Monitoring Report (DMR) required by Part III.C of the general permit, the permittee shall report post-dilution results ( $C_o$ ) so as to be directly comparable to the effluent limits in the tables. The end-of-pipe sampling result ( $C_e$ ) and  $D_m$  shall be submitted as a supplement to the DMR.

### **Table C-1 - Requirements for Platform A**

Constituent	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Copper	0.00285 mg/l	0.0025 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (a) Pyrene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (k) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (k) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

**Table C-2 - Requirements for Platform B**

Constituent	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Benzo (a) Pyrene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (k) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (b) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

**Table C-3 - Requirements for Platform Edith**

Constituent	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Zinc	0.0783 mg/l	0.0267 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

**Table C-4 - Requirements for Platform Elly**

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Constituent	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Zinc	0.064 mg/l	0.024 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

**Table C-5 - Requirements for Platform Gail**

Constituent	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Benzene	0.0258 mg/l	0.0059 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (a) Pyrene	0.0000257 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Undissociated Sulfide	0.00579 mg/l	0.00155 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

**Table C-6 - Requirements for Platform Gilda**

Constituent	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Copper	0.00392 mg/l	0.00262 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (a) Anthracene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (a) Pyrene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (k) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (b) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Chrysene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Dibenzo (a,h) Anthracene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Undissociated Sulfide	0.00579 mg/l	0.00197 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

**Table C-7 - Requirements for Platform Gina**

Constituent	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Ammonia	1.23 mg/l	0.459 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Copper	0.00368 mg/l	0.00251 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (a) Pyrene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (k) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (b) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

**Table C-8 - Requirements for Platform Habitat**

Constituent	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Copper	0.00292 mg/l	0.00246 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzene	0.015 mg/l	0.0059 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (a) Pyrene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (k) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (b) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Dibenzo (a,h) Anthracene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Undissociated Sulfide	0.00569 mg/l	0.00125 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

**Table C-9 - Requirements for Platform Harvest**

Constituent	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Ammonia	0.799 mg/l	0.551 mg/l	Once/quarter	Grab	Daily Max and

					Monthly Ave
Copper	0.00335 mg/l	0.00251 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzene	0.019 mg/l	0.0059 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (a) Anthracene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (a) Pyrene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (k) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (b) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Chrysene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Dibenzo (a,h) Anthracene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Undissociated Sulfide	0.00578 mg/l	0.00393 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

**Table C-10 - Requirements for Platform Hermosa**

Constituent	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Copper	0.00336 mg/l	0.00237 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzene	0.0119 mg/l	0.0059 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (a) Anthracene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (a) Pyrene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (k) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (b) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Chrysene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

Dibenzo (a,h) Anthracene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Undissociated Sulfide	0.00578 mg/l	0.00448 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

**Table C-11 - Requirements for Platform Hidalgo**

Constituent	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Benzene	0.019 mg/l	0.0059 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (k) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (b) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Chrysene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Undissociated Sulfide	0.00579 mg/l	0.00409 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

**Table C-12 - Requirements for Platform Hillhouse**

Constituent	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Benzo (a) Anthracene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (a) Pyrene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (k) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (b) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Chrysene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Dibenzo (a,h) Anthracene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave



**Table C-13 - Requirements for Platform Hogan**

Constituent	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Copper	0.00298 mg/l	0.00246 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Hexavalent Chromium	0.00461 mg/l	0.00154 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzene	0.0235 mg/l	0.0059 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (a) Pyrene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (k) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Benzo (b) Flouranthene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Dibenzo (a,h) Anthracene	0.000036 mg/l	0.000018 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

#### **Appendix D - Platform Specific Requirements for Chlorine in Cooling Water and Fire Control System Test Water Discharges**

The effluent limitations for chlorine in the following tables are applicable following initial dilution in the mixing zone defined in Part V of the general permit. Compliance with the limits shall be determined through the use of the following equation:

$$C_o = C_e / (1 + D_m)$$

Where  $C_o$  = the concentration in the discharge after initial dilution,

$C_e$  = the end-of-pipe concentration prior to dilution, and

$D_m$  = the dilution ratio expressed in parts seawater per part wastewater.

On the Discharge Monitoring Report (DMR) required by Part III.C of the general permit, the permittee shall report post-dilution results ( $C_o$ ) so as to be directly comparable to the effluent

limits in the tables. The end-of-pipe sampling result ( $C_e$ ) and  $D_m$  shall be submitted as a supplement to the DMR.

For Platforms Gail, Harvest, Hermosa and Hidalgo, the following effluent limitations and monitoring requirements for chlorine apply to both cooling water and fire control system test water. For Platforms Grace and Irene, the requirements only apply to fire control system test water.

Platform	Maximum Daily Limit	Average Monthly Limit	Measurement Frequency	Sample Type	Reported Values
Gail	0.013 mg/l	0.00565 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Grace	0.013 mg/l	0.00452 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Harvest	0.011 mg/l	0.0065 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Hermosa	0.0124 mg/l	0.0061 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Hidalgo	0.013 mg/l	0.00505 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave
Irene	0.013 mg/l	0.00539 mg/l	Once/quarter	Grab	Daily Max and Monthly Ave

